

Doc. No. 76.

CATALOGUE
OF THE
GEOLOGICAL SPECIMENS,

COLLECTED, ON THE LATE SURVEY OF THE STATE OF OHIO,

By W. W. MATHER, STATE GEOLOGIST.

February 25, 1842.

EXECUTIVE OFFICE,
COLUMBUS, *February 26, 1842.*

The Speaker of the House of Representatives:

SIR: I transmit, herewith, the report of Dr. Mather, the gentleman employed, under an act of the last session, to arrange the geological specimens heretofore collected.

I suggest to the legislature the propriety of printing copies of the catalogue, to be sent out with the sets of specimens intended for distribution.

Respectfully submitted,
THOS. CORWIN.

R E P O R T .

COLUMBUS, February 23, 1842.

To His Excellency, THOMAS CORWIN:

SIR: I have labelled the specimens collected on the geological survey of the State. The cabinets for the colleges are in boxes, ready for distribution to the different literary institutions, in accordance with the law authorizing the geological survey.

There are nine suites for distribution. Two suites are retained for the State cabinet, one of which is displayed in cases with glazed fronts, in the rooms prepared for the reception of the cabinet; and every specimen has its label, giving its name and location—and, generally, the name of the owner, the number of the lot, section, township, and range where it was found; and the labels are pinned either directly over or in front of the specimen to which it belongs. This suite is arranged geographically, by counties, each kind of mineral by itself, shewing specimens of the same from different localities.

The other State collection is in boxes, because there are no cases prepared to receive it, and there are no funds appropriated to furnish the cases. It was intended to display this cabinet like the other, and to have it arranged by a systematic arrangement, so that any particular kind of mineral or rock could at once be found and examined. It is considered desirable to have this arrangement made, to facilitate reference to the specimens.

A tabular condensed catalogue of all the suites of specimens is herewith submitted. This gives the locality, and, generally, the lot, section, township and county of each specimen, and shews at a glance in which, and in how many, of the collections, each kind of mineral or rock for each locality is contained. On the labels of the specimens for the colleges, the particular localities are not always mentioned; and sometimes where they are, they are not always exact. Corrections have been made on the catalogue, and they are now believed to be all correct. By means of the letters and numbers on the top of the labels, and the corresponding ones on the catalogue, the corrections in the

college collections can be made. The particular localities of many of the specimens of Licking and Muskingum counties could not be procured, as the original note book of Col. Foster, who collected them, has been lost. It is not among the records of the geological survey, and Col. Foster cannot find it among his own papers.

The duplicate suite of the State collection, intended for systematic arrangement, is packed in five boxes, and deposited in the geological rooms in the rear of the old court house. An expenditure of \$120 to \$150 for cases, is necessary before this collection can be arranged or displayed; and three or four weeks labor would be required to prepare it for exhibition in the same style as the other. It is believed to be important to display it as a means of reference, so that our citizens may refer to it, and compare specimens that they may think valuable.

There are many specimens of ores, minerals, soils, mineral waters, and other things in the State collections, that were sent with particular requests to have them analyzed; and even during the few weeks I have been here this winter, many specimens have been brought to me, with similar requests, that they might know whether they were valuable or not. The one from Clinton county, which is said to contain *tin*, is one of these; and, if it does contain that metal, it is of high importance to ascertain it, as the ore is said to be very abundant. It does not seem probable, either from its appearance or geological position, that it does contain it; still, it is asserted that it actually yields near thirty per centum of that metal. The expense of analyzing these various minerals, and exploring the localities, is trifling, when compared with their importance to the interests of the community. The geological office might be kept open; specimens, brought from various parts of the State, be examined and analyzed; and information given to the persons interested, without any imposition—information upon which they could depend as accurate; and the geological survey be progressing on a moderate scale, at an expense not exceeding \$3,000 per annum, including all the expenses of the laboratory, analysis, traveling, and all incidental expenses.

The expenses of preparing the cabinet have been more than was contemplated, and have been increased by contingencies over which I have had no control. When I came here, in July, to put up the cabinet, the room that had been prepared for it, had been assigned necessarily for other uses; and the rooms that were then assigned, were not then in a situation to be used. I, therefore, rather than wait for them to be prepared, took the specimens home with me to label, and was occupied during a portion of the time, as a relaxation from my other duties to an-

other State, for a period of three months, in labelling and preparing the specimens for the State and College cabinets; and during a large portion of this time, one person was continually employed in unpacking, distributing, putting on labels, wrapping and repacking the specimens, and another to write the labels, under my direction. On my return here, on the last of October, with the specimens, the rooms that had been fitted up for the cabinets, were occupied necessarily by the Secretary of State, in packing and distributing the State laws, which caused another detention; and when they could be occupied by the State collections, it was found that the cases were not of sufficient capacity to contain them. Specimens were put up, so far as could be, and more cases ordered, and they were not prepared to receive the specimens until January. Since that time I have been engaged in putting it up, and now four more cases are required to display the cabinet that yet remains in boxes. I feel called on to make this explanation, in consequence of the long time that has elapsed since it was supposed the State collections would be open for the inspection of the public.

I have the honor to be, sir,

Your obedient servant,

W. W. MATHER.

No. I.

CATALOGUE of the specimens collected on the Geological Survey of Ohio, from the few counties in which examinations were made.

CATALOGUE of Geological Specimens—Continued.

Number of box	Letter or No.	Name of the collector.	Name and locality of the specimens.	Letter and number of the boxes of the collections.														
				A	B	C	D	E	F	G	H	I	K	L	M	N	O	
No. 9	A	Foster,	Gray fossiliferous limestone, from the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	B	"	Iron stone (carbonate of iron) from the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	"	Ferruginous blonde, from the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	D	"	Fossiliferous limestone, from the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	E	"	hornstone, from the calcareo siliceous rock of the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	F	"	Buhr stone, from the calcareo siliceous rock of the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
	G	"	Quartz crystalized, from the calcareo siliceous rock of the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
	L	"	Cannel coal, underlies the calcareo siliceous rock of coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	K	"	Carbonate of iron, from the coal formation, Licking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	A	Briggs,	Compact gray limestone, Sec. 28, T. 13, R. 16, 3 miles S. E. of Logan, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	B	"	Sandstone, (gray,) used for locks on canal, 3 miles below Logan, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	C	"	Buff colored limestone, upper part of it, 3 miles below Logan, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	D	"	Limonite (iron ore) sec. 23, Falls township, 3 miles below Logan, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	E	"	about one mile N. of the falls of Hocking, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No. 11	F	"	Carbonate of iron, loose mass same locality as above, Hocking county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	G	"	Bituminous coal, from Paines' bed, sec. 3, Swan township, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	H	"	Iron ore, (red per oxide,) Paines' bed, 4½ miles S. W. of falls of Hocking, sec. 31 or 32 of Falls tp.	1	1	1	1	1	1	1	1	1	1	1	1	1		
	I	"	Red limestone, from high hill, Paines' bed, sec. 26, Swan township, Hocking county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	K	"	Limonite, (iron ore,) near the W. line of Swan township, on road from Adelphi to Athens, Hocking co.	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	L	"	Slaty sandstone, ("limestone,") N. E. Corner of Jackson township, Hocking county,	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	M	"	Limonite, (iron ore,) from conglomerate ore bed, Jackson township, Hocking county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	N	"	Grit, suitable for oil stones, from the calcareo siliceous rock, sec. 26, Falls township, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
	O	"	Cinder from a furnace, sec. 34, T. 13, R. 15, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	P	"	Buff colored sandstone, from the coal formation, ½ mile from Logan, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Q	"	Fossiliferous sandstone, from quarry? coal formation, Hocking county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
	A	"	Vegetable impressions in carbonate of iron, from the coal formation, sec. 11, T. 11, R. 16, Athens co.	5	1	1	1	1	1	1	1	1	1	1	1	1	1	
	B	"	Oolitic iron ore, sec. 12, York township, from the coal formation, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	C	"	Limestone, conglomerate, Sec. 18, T. 11, R. 15, Waterloo, from the coal formation, Athens county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	D	"	Blue fossiliferous limestone, land of Mr. Gibbs, near Nelsonville, coal formation, 150 ft. above the coal, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	E	"	Kidney iron ore, (carbonate passing into limonite,) from the coal formation, from the hill above the salt well, opposite Nelsonville, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	F	"	Bituminous coal, main seam, Nelsonville, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
	G	"	Gray sandstone, above F., near mouth of Monday creek, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	H	"	Shale, above F., at Nelsonville, Athens county,	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	K	"	Vegetable remains in iron ore at Whitemore's, Snow fork of Monday creek, Athens county,	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
	L	"	Iron ore, (limonite,) above the coal at Whitemore's, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	N	"	Bituminous coal, contains pyrites, S. W. qr. of sec. 33, Dover township, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	O	"	" sec. 20, Dover township, Ewing's salt works, Athens county,	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	P	"	Shale from above O., sec. 20, Dover township, Ewing's Salt Works, Athens county,	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	Q	"	Red peroxide of iron, (rich ore,) sec. 12, Waterloo township, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	R	"	Conglomerate of limestone and iron ore, sec. 18, Waterloo township, on Homely's Run, Athens co.,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	S	"	Gray limestone, 60 to 70 feet above coal, at Nelsonville, Waterloo township, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	T	"	Blue clay, below the coal, at Whitemore's, Athens county,	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
	U	"	Calamine and carbonate of iron, from the coal formation, Athens county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	V	"	White clay, Athens county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Limonite, (iron ore,) from the coal formation, Perry county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Bituminous coal, Perry county,	2	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Iron ore, (compact yellow,) Perry county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Slaty sandstone, from Moore's, Waverly sandstone, Scioto county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Radiated nodule of pyrites, sec. 33, Dover township, Scioto county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Waverly sandstone, (fine grained,) near Moore's, 4 miles E. of Portsmouth, Scioto county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Indurated white clay,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
	—	"	Pentremite,	1														

CATALOGUE of Geological Specimens—Continued.

Number of box	Letter or No. of specimen.	Name of the collector.	Name and locality of the specimens.												Letter and number of the boxes of the collections.						
			A	B	C	D	E	F	G	H	I	K	L	M	N						
3	A	Briggs,	Carbonate of iron, from the coal formation from shale above B., Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	B	"	Limestone, from the coal formation one half mile west of Zoar—overlies coal C. Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	C	"	Bituminous coal, from the coal formation one half mile west of Zoar, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	E	"	Pyritous coal, from the coal formation between the laminae of C., do do	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
"	F	"	Limestone, from the coal formation 1/4 mile west of Zoar Furnace, Tuscarawas co.—used as a flux,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	G	"	Kidney iron ore, (limonite,) from the coal formation (shell ore,) 1 1/4 miles west of Zoar, Tuscarawas co,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10			
"	H	"	Columnar argillaceous iron ore, from the coal formation from the shale above B., (same as G. but roasted,) Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12			
"	K	"	Fossiliferous limestone shale from the coal formation 50 or 60 feet below B., Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4		
"	L	"	Red ochreous clay, from the coal formation near Zoar, do do	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0			
"	M	"	Iron ore, (sent as copper ore,) from the coal formation from the field above the stone quarry near Zoar, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	N	"	Blue clay, used for pottery, from the coal formation near Zoar, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
1	A	"	Limestone, (impure) near canal, from the coal formation two miles west of New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	a	"	Sandstone, one third mile below Heller's, from the coal formation on old Town Creek, Tuscarawas co,	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—			
"	B	"	Iron ore, from a bed supposed to be four feet thick, from the coal formation two and three fourth miles north west of New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	b	"	Shale, above the coal at Heller's, from the coal formation on old Town Creek, lot 12, T. 8, R. 2, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	C	"	Iron ore, same farm as B., but a little north, from the coal formation two and three fourths miles north west of New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	D	"	Blue limestone, ("hydraulic limestone") same locality, but lower in the hills, from the coal formation two and three fourth miles north west of New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	E	"	Iron ore, farm of M. Johnson, from the coal formation, township eight, range eight, between sections two and three, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	e	"	Sandstone, from a quarry on a hill, from the coal formation near Rogersville, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	F	"	Hornstone, (fossiliferous,) loose masses, from the coal formation five or six miles west of Dover, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	f	"	Shale, (fossiliferous) from the coal formation of Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3			
"	G	"	Limestone, (fossiliferous) locality of E. near base of hills, from the coal formation in Tuscarawas co,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	g	"	Coal, (bituminous,) one mile west of Rogersville, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	H	"	Iron ore, Z, from the coal formation, township nine, range one, lot twenty two, south west quarter of township, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
"	I	"	Kidney iron ore, from the coal formation, Tuscarawas county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
"	J	"	Limestone, (fossiliferous) from the coal formation, Tuscarawas county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
"	K	"	Sandstone, from the coal formation, three to three and a half miles from New Philadelphia, on road to Cumberland, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	L	"	Slaty iron ore, from the coal formation one half mile south of Fairfield furnace, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	M	"	Granular iron ore, from the coal formation, Fairfield township, section fifteen, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	N	"	Reddish limestone, (fossiliferous) from the coal formation, township ten, range one, one mile north of Fairfield furnace, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	O	"	Limonite, (iron ore) thick bed used at Fairfield furnace, from the coal formation, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
"	P	"	Kidney iron ore, (argillaceous iron ore) from the coal formation, from seventy feet below O., Tuscarawas county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
"	Q	"	Bituminous coal, Blickenderfer's mine, from the coal formation, lot 31, T. 8, range two, on canal, two and a half miles below New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	R	"	Bituminous coal, J. Swihart's bank, section 4, T. 8, range three, four and a half miles south west of Canal Dover, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	S	"	Blue Limestone (fossiliferous) from the coal formation, valley of Stone Creek, three and a half to four miles from New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	T	"	Sandstone, (coarse) Seaton's farm, from the coal formation one half mile northeast of New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	V	"	Iron ore, east bank of Tuscarawas, Seaton's farm, from the coal formation, two miles above New Philadelphia, Tuscarawas county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
"	W	"	Iron ore containing triobites, from the coal formation, Tuscarawas county,	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
3	A	Foster,	Shale, highly carbonized, (almost cannel coal,) from the coal formation, Muskingum county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12		
"	B	"	Shale, glazed and highly carbonized, do do do do do	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	C	"	Bituminous coal, Lyder's bank, do do do do do	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	D	"	Concreted carbonate of lime, do do do do do	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8		
"	E	"	Fossil plants (impressions of) in shale do do do do do	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	—		
"	"	"	Coal plant impression in sandstone, do do do do do	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
"	"	"	Limestone, from Vandevest's, section twenty five, Union township, from the coal formation, Muskingum county.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
16	Whittlesey		Balls of iron pyrites, from the coal formation, Muskingum county,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
16	"		Glazed shale, from the coal formation at Talmadge, Portage county,	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—			
6	A	Foster,	Shale, with various impressions of plants, from the coal formation, Talmadge, Portage county,	10	8	5	5	4	2	2	2	2	1	1	1	1	1	1			
"	B	"	Limestone, (fossiliferous) from the coal formation, Zanesville, Muskingum county,	1																	

CATALOGUE of Geological Specimens—Continued.

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Number of box	Letter or No. of specimen.	Name of the collector.	Name and locality of the specimens.	Letter and number of the boxes of the collections.												
				A	B	C	D	E	F	G	H	I	K	L	M	
e w 6			Leptæna internal, east of, from the limestone near Springfield, Clark county,	1	1											
e w 2			do do do do do do	"												
e w 15			do do do do do do	2	2											
			Favosite, from Frankfort, Ky.	1												
e w 39			Chert, from Springfield, Clark county,	"	1											
e w 37			Compact limestone, Springfield, Clark county,	"												
1			Stalagmite, do do do	"												
2			Hornstone, from the limestone of the coal formation, Clinton township, Jackson county,	"	"											
3			Imperfect buhr stone, from the coal formation, middle fork of Salt Creek, Richland, Jackson county,	"	"											
4			Fossiliferous iron ore, (limonite) from the coal formation, north end of Richland township, Jackson co.	"	"											
5			Ferruginous sandstone, from the coal formation, north end of Richland township, Jackson county,	"	"											
6			Sandstone, (friable) from the coal formation north end of do do do do	"	"											
7			Buhrstone, from the coal formation, Sisson's quarry, Clinton township, Jackson county,	"	"											
8			Iron ore, limonite, containing fossils, from the coal formation, Bondurand's ore bed, south east quarter of south west quarter of section fourteen, township seven, range eighteen, Jackson county,	"	"	1	1									
9			Impressions of fossils on sandstone, from the coal formation near Jackson Furnace, Hamilton, Jackson county,	"	"											
10			Impressions of fossils on sandstone, from the coal formation near Jackson Furnace, Hamilton, Jackson county,	"	"											
11			Iron ore, limonite, thick bed, from the coal formation near Jackson Furnace, Hamilton, Jackson co.	"	"											
12			Buhr stone, from the coal formation, Jefferson, Jackson county,	"	"											
13			do containing the atrypa, from the coal formation, Clinton, Jackson county,	"	"											
14			Black limestone, from the coal formation, north east part of Richland, near A. Lentz, Jackson county,	"	"											
15			Cannel coal, from the coal formation, Guilderland's pit, 1 mile north of Jackson Furnace, Jackson co.	"	"											
16			Bituminous coal, from the coal formation, Guilderland's pit, 1 mile north of Jackson Furnace, Jackson co.	"	"											
17			Encrinite, in limestone, from a buhr stone quarry, coal formation, Raccoon Creek, Clinton, Jackson co.	"	"											
18			Limestone, gray and crystalline, Jackson county,	"	"											
S A			Kidney iron ore, (limonite) from the coal formation, John Canter's section twenty four, Hamilton, Jackson county,	"	"											
A E F			Lignite, in clay, from the banks of the Ohio, at Portsmouth, below the clay formation, Scioto county,	"	"											
A E F			Buhr stone, from R. McDougal's quarry, three miles west of McArthurstown, Athens county,	"	"											
13 Y			Sandstone, above the coal, Elk township, Athens county,	"	"											
E E F			Iron ore, above the buhr stone, Morrison's quarry, Elk township, Athens county,	"	"											
A E F			Iron ore, roasted, (block ore) from near Clinton Furnace, Scioto county,	"	"											
S W S			Limestone, from the coal formation, section twenty seven, Elk township, Athens county,	"	"											
S W S			Nodules, from the Waverly sandstone, Scioto county,	"	"											
S W S			do fossiliferous, from the Waverly sandstone, Scioto county,	"	"											
S W S			Pyrites, coal formation, Scioto county,	"	"											
"			Ammonites, in a nodule from the Waverly sandstone, Clugman's quarry, Scioto county,	"	"											
D 10			do from the Waverly sandstone, Master's quarry, near Portsmouth, Scioto county,	"	"											
			Encrinites, in a nodule from the Waverly sandstone, Master's quarry, Portsmouth, Scioto county,	"	"											
			Asterophylites, large specimen on shale, Putnam Hill, near Zanesville, Muskingum county,	"	"											
			do small specimen on shale, Putnam Hill, near Zanesville, Muskingum county,	4	2	4	"	1	1	1	"	"	"	"	"	"
			Lepidodendron, on sandstone, from the coal formation, Zanesville, Muskingum county,	1												
			Calamites, from the coal formation, Putnam Hill, near Zanesville, Muskingum county,	2												
			do and pecopteris, from the coal formation, Putnam Hill, near Zanesville, Muskingum county,	1												
			Glazed and red shale, from the coal formation, Grotto of Plants, near Marietta, Washington county,	"												
			Neuropteris, in red shale, from coal formation, Grotto of Plants, near Marietta, Washington county,	"												
			Pecopteris, in red shale, from the coal formation, Grotto of Plants, near Marietta, Washington county,	"												
			Pebble, three fourths of a mile south east of Zanesville, Muskingum county,	2	"											
			Nodular iron ore, three fourths of a mile, south east of Zanesville, Muskingum county,	1	"											
			Nodular iron ore, Falls township, Dillon's Furnace, north west of Zanesville, Muskingum county,	"												
			Compact limestone, Falls township, Zanesville, Muskingum county,	"												
			Fossil plant on shale, Putnam's Hill, Muskingum county,	"												
			Conglomerate, from gravel banks near Zanesville, Muskingum county,	"												
			Sandstone, slaty and micaceous, from the coal formation, Zanesville, Muskingum county,	"												
			Pecopteris on shale, Putnam's Hill, Zanesville, Muskingum county,	2	"											
			Pebbles of iron ore, three fourths of a mile south east of Zanesville, Muskingum county,	8												
			Cyathophyllum, Flint Ridge, Falls township, Muskingum county,	1												
			Gorgonia, Putnam's Hill, Muskingum county,	"												
			Spirifer, do do do do	"	"											
			Encrinial impression, Putnam's Hill, Muskingum county,	"	"											
			do spine, Licking county,	"	"											
			Spirifer, do	"	"											
			Spirifer, various corallines in limestone, Putnam's Hill, Muskingum county,	"	"											
			Spirifer, Licking county,	"	"											
			Fossil shell in argillaceous iron ore, Licking county,	"	"											
			Fossiliferous limestone, Zanesville,	"	"											
			do do Licking county,	"	"											
1 E F			Decomposed septaria, Putnam's Hill, near Zanesville,	"	"											
4 E F			Sandstone, from the base of the hill, at the Wildcats den, Elk township, Athens county,	"	"											
5 E F			Shale, sixty feet thick, at the Wildcats den, Elk township, Athens county,	"	"											
6 E F			Iron ore, from the shale, at the Wildcats den, Elk township, Athens county,	"	"											
7 E F			Limestone, from the lower part of the quartz rock, at the Wildcats den, Elk township, Athens county,	"	"											
8 E F			Quartz rock, from the upper part of the quartz rock, at the Wildcats den, Elk township, Athens co.	"	"											
9 E F			Iron ore, (limonite) resting on the upper part of the above, at the Wildcats den, Elk township, Athens co.	"	"											
11 E F			Sandstone, over the quartz rock, at the Wildcats den, Elk township, Athens county,	"	"											
			Silicious iron ore, from the upper part of the bed, at the Wildcats den, Elk township, Athens county,	"	"											
			Gorgonia, in buhrstone, Flint ridge, Hopewell													

CATALOGUE of Geological Specimens—Continued.

Mark on the label.	Name and locality of the specimens.	Letter and number of the boxes of the collections.												
		A	B	C	D	E	F	G	H	I	K	L	M	
P 11	Buhr stone, south east qr. of sec. 3, Clinton, Sisson's quarry, lies below the good buhr, Jackson co.,	1	1											
D "	Blue limestone, section one, Richland township, Jackson county,	"	"	1	1	1	1	1	1	1				
	Gorgonia, in Radcliff's limestone, section one, township six, range eighteen, Jackson county,	"	"	2	2	"	"	"	"	"				
	Pentamerus, from Radcliff's limestone, section one, township six, range eighteen, Jackson county,	2	2	3	"	"	"	"	"	"				
	Fossil shells, from do do do do do do	2	1	3	"	"	"	"	"	"				
I 12	Calamites, in shale, above the coal, at the upper part of the bastard limestone, section 8, Elk, Athens co.	1	1	1	"	"	"	"	"	"				
"	Impressions of from the upper part of the bastard limestone, section 8, Elk township, Athens co.	2	2	2	"	"	"	"	"	"				
"	Impressions of on iron ore, top of the bastard limestone, section 8, Elk township, Athens co.	1	1	1	"	"	"	"	"	"				
	Calamite, from the sandstone, Zanesville, Muskingum county,	"	"	"										
	do from near Marietta, Washington county,		3											
	Fossil plant impression, near Marietta, Washington county,		1											
	Fossiliferous iron ore do do do do		"	"										
	Sandstone, of the coal formation, two miles west of Marietta, Washington county,		"											
	Productus, Marietta, Washington county,		"											
	Fossil plants, in ferruginous limestone, section eight, Elk township, Athens county,		"	"										
	Vegetable impression in sandstone, between conglomerate and Waverly series, five miles north west of Jackson, Jackson county,		"											
	Nodular iron ore, containing blende, Zanesville, Muskingum county,		"											
	Argillaceous carbonate of iron and lime, do do do		"											
	Mineral charcoal, in black shale, do do do		"											
	Part of a plant changed to coal, from the sandstone in the cut of the canal, Zanesville, Muskingum co.		"											
	Encrinite stem, productus, spirifer, pentamerus, terebratula, and another fossil from the limestone at Zanesville, Muskingum county,	10	9											
	Silicified favosite, from the limestone at Zanesville, Muskingum county,	1	1	"										
	Lepidodendron, Joe's Run, near Dillon's Furnace, Hopewell township, Muskingum county,	"												
	do Zanesville, Muskingum county,	"												
	Coal, in contact with limestone, Putnam Hill, Muskingum county,	"	"											
	Argillaceous iron ore, (impure) mined for Dillon's Furnace, Falls township, Muskingum county,	"	"											
	Vegetable impression, Zanesville, Muskingum county,	"												
	do do on shale, three fourths of a mile south east of Zanesville, Muskingum county,	"												
	Limestone, of the coal formation, Putnam, do do	"	"											
	Gorgonia, in the coal formation, three fourths of a mile south east of Zanesville, Muskingum county,	"												
	Orthoceratite ? in the sandstone from the coal formation, Zanesville,	"	"											
	Mineral charcoal, in sandstone, from the coal formation, do	"	"											
	do do in shale, from the coal formation, do	"												
	Pecopteris in shale, Putnam Hill, near do	4	3	3	2	2	2	2	2	2	2	2	2	2
	do do do do	4	3	3	2	2	2	2	2	2	1	1	1	1
	Eleven species not recognized, from Putnam Hill, near do	11	4	2	2	1	1	1	1	1	1	1	1	1
W 1	Limestone, (fossiliferous) stray fragment, one mile down the creek from Parkman, Geauga county,	"												
W 3	Orthocera, and other fossils, in black shale, Stephenson's coal mine, Canfield, Trumbull county,	"												
W 4	Limestone, (compact) from Adam Symms' farm, from the north west corner of Canfield, Trumbull co.	"												
W 4'	do blue, (compact) from Yellow creek, Poland, Trumbull county,	"	1	1										
W 5	do black, containing the Leptæna, overlies the coal near number three, Canfield, Trumbull co.	"	"	"	1	"								
W 7	do (argillaceous) nagelkalk, found along the Yellow creek, Poland, Trumbull county,	"	"	"	"	"								
W 8	do blue, (compact) lots Nos. 18 and 19, Youngstown, Trumbull county,	"	"	"	"	"								
W 9	Coal, (bituminous) 4½ feet thick, from the coal formation, Dunn's mine, Youngstown, Trumbull county,	"	"	"	"	"								
W 9'	Coal, (bituminous) second quality, from the coal formation, Moore's mine, lot 30, Brookfield, Trumbull co.	"	"	"	"	"								
W 9"	do do cannel, from the coal formation, Moore's mine, Brookfield, Trumbull county,	"	"	"	"	"								
W 10	Waverly sandstone, containing fossils, on Big Brook, in the south east part of Orange, Cuyahoga co.	"	"	"	"	"								
W 11	Waverly sandstone, containing fossils, on Big Brook, at Drew's saw mill, Orange, Cuyahoga county,	"												
W 12	Iron stone, from the Waverly sandstone, on Big Brook, near the mouth, Orange, Cuyahoga county,	"												
W 13	Iron stone, in shale, of the slate formation, Chagrin Falls, Cuyahoga county,	"												
W 14	Coal, (bituminous) from Adam Symms' farm, Canfield, Trumbull county,	"												
W 15	Iron ore, from the coal formation, Hubbard, Trumbull county,	"												
W 16	Iron ore, (argillo silicious) coal formation, Hubbard, Trumbull county,	"												
W 17	Conglomerate, from the coal formation, roof of Moore's coal mine, lot 30, Brookfield, Trumbull county,	"												
W 18	Conglomerate, from the coal formation, floor of Moore's coal mine, lot 30, do do do	"												
W 19	Cannel coal, from the coal formation, A. Cone's farm, lot 23, Hartford, do do do	"												
W 20	Iron ore, (silicious) from the coal formation, below the coal, at J. B. Curtis's mine, lot 86, Brookfield, Trumbull county,	"												
W 21	Ferruginous sandstone, (called iron ore) ten feet above coal, Hubbard, Trumbull county,	"												
W 22	Argillaceous iron ore, below the coal, five miles south east of Sharon, Pennsylvania,	"												
W 24	Sandstone, dark colored, and containing remains of plants, Reeder's coal mine Brookfield, Trumbull co.	"												
W 26	Argillaceous iron ore, with brown spar, overlies the coal at Mary Campbell's mine, one and a half mile north east of Youngstown, Trumbull county,	"												
W 27	Limestone, gray and fossiliferous, 25 feet thick, coal formation, lot 55, Poland, Trumbull county,	"												
28	do containing fossils, 2 feet thick, coal formation, lot 55, Poland, Trumbull county,	"	"	"										
29	Carbonate of iron, Jacob Gwin's farm, lots 12 and 13, Youngstown, Trumbull county,	"												
30	Micaceous sandstone, made into grindstones, lot 55, Poland, Trumbull county,	"												
31	Limestone 2 feet thick, limestone of the coal formation, lots 12 and 13, Youngstown, Trumbull county,	"												
"	Productus, from the limestone, of the coal formation, lots 12 and 13, Youngstown, do do	7	"	"										
"	Nagelkalk, from the limestone, of the coal formation, lots 12 and 13, Youngstown, do do	1	"	"										
32														
33	Limestone, from the coal formation, lots 12 and 13, Youngstown, Trumbull county,	2	"	"	"	"	"	"	"	"				
33	Hornstone, from the above limestone, lots 12 and 13, do do do	1	"	"	"	"	"	"	"	"				
34														
35														
36	Limestone, (blue) probably same stratum as 4 and 4, Poland, Trumbull county,	"	"	"	"	"	"	"	"	"				
36	Fossils from the above limestone, Poland, Trumbull county,	9												
37	Ferruginous limestone, lots 12 and 13, (probably will make cement) Youngstown, Trumbull county,	1	"	"	"	"	"	"	"	"				
38	Carbonate of iron, above limestone, lots 5 and 6, Austintown, Trumbull county,	"	"	"	"	"	"	"	"	"				
39	Limestone shale, with fossil remains, Austintown, Trumbull county,	"	"											

CATALOGUE of Geological Specimens—Continued.

Mark on the label.	Name and locality of the specimens.	Letter and number of the boxes of the collections.											
		A	B	C	D	E	F	G	H	I	K	L	M
42	Chert in loose masses, north west part of Poland, Trumbull county,	1	1										
43													
44													
45	Limestone, lot No. 82, Freedom, Portage county,	"	"	1	1	1	1						
46	Argillo ferruginous limestone, F. Wadsworth's land, one half mile above the saw mill, Edinburgh, Portage county,	"	"	"	"								
47													
48	Calcareous sandstone, detached masses, one half mile west of North Hampton centre, Portage county,	"	"	"	"								
49	Coal, (bituminous,) Portage county,	"	"	"	"	"	"	"					
50	Cannel coal, or very highly bituminized shale, middle of the north line of Freedom, Portage county,	"	"	"	"								
51	Potters' clay, used at Stanley & Bemis' pottery, in Newton, south line of Jackson Tp., Trumbull co.	"	"	"	"								
52	Calcareous carbonate of iron, one half mile east of Jackson centre, Trumbull county,	"	"	"	"	"	"	"					
53	Gray sandstone, containing mineral charcoal, Lowry's quarry, Talmadge, Portage county,	"	"	"									
54	Potters' clay, lots 55 and 56, one half mile west of centre of North Hampton, Portage county,	"	"	"									
55	Limestone, like that of Sandusky, and the adjoining islands, (boulder 20 feet through,) from south west part of Boston, Summit county,	2	2	2	"	"	"	"	1	1			
56	Potters' clay, south west part of Boston, Summit county,	1	1										
57	Coal plant impressions, in shale and slaty sandstone, from H. Newbury's coal mine, north west of Talmadge, Portage county,	"	"	1									
58		"	"										
59	Coal, (bituminous,) Wright's mine, one mile west of Talmadge, Portage county,	"	"	"	"	"	"	"					
60	Coke, made in open air, from coal 59 above,	"	"	"									
61	Coal, (bituminous,) D. Upson's mine, Talmadge, Portage county,	"	"	"	"	"	"	"					
62	Coke, from the coal 61 (coked in ovens,) Talmadge, Portage county,	"	"	"	"								
63													
64	Neuropteris, in silicious shale or slaty sandstone, from A. Whittlesey's coal mine, Talmadge, Portage co.	"	"	"	"	"	"	"	1	1			
65													
66	Encinal remains, in sandstone, from the top of the Waverly sandstone series, near Newark, Licking co.	"	"	"	"								
67	Limestone, of the coal formation, lot No. 18, Shaler's Steep, Springfield, Summit county,	"	"	"									
68	Argillaceous iron ore, of the coal formation, lot No. 18, Shaler's Steep, Springfield, Summit county,	"	"	"	"								
69	Coke	"	"										
70	Impression in sandstone, called "stone fruit," from a boulder, Springfield, Summit county,	"	"										
71	Clay, made into stone ware, Springfield,	"	"										
72	Carbonate of iron, from Bankard's old saw mill, Portage, Summit county,	"	"										
73													
74	Coal, bituminous, Fink's mine, Norton, Medina county,	"	"										
75	{ Carbonate of iron, one mile south west of Akron, lot nineteen, Portage, Summit county,	"	"										
76	{ Argillaceous limestone, one mile south west of Akron, lot number nineteen, Portage, Summit co.	"	"										
77	Calcareous sinter, two hundred yards below the bridge, Cuyahoga Falls, Summit county,	"	"										
78													
79	Hydraulic limestone, from the foot of the rapids, at Cuyahoga Falls, Summit county,	"	"										
80	{ Argillo ferruginous limestone, from the foot of the rapids, Cuyahoga Falls, Summit county,	"	"										
81	{ Hydraulic limestone, after calcination, from near the lower paper mills, Cuyahoga Falls, Summit co.	"	"										
82													
83	Fossil, "fruit" impression, in sandstone, Mendenhall's coal mine, one half mile south west of Talmadge Centre, Portage county,	"	"										
84	Fossil coal plant, impression on sandstone, Mendenhall's coal mine, one half mile south west of Talmadge, Portage county,	"	"										
85	Sandstone, (grindstone grit) Sperry's quarry, north line of Talmadge, Portage county,	"	"										
86	Coal, (bituminous) one half mile west of Greentown, Stark county,	"	"										
87	Limestone, (fossiliferous, blue,) from the coal formation, half a mile west of Greentown, Stark co.	"	"										
88	do east line of Atwater, Portage county,	"	"										
89	Fossil plants in black shale, at the saw mill, lot five, C. F., east line of Atwater, Portage county,	"	"										
90	Blende, in carbonate of iron, lot number fifty one, Deerfield, Portage county,	"	"										
91	Limestone, (black) from the coal formation, south east corner of Deerfield, Portage county,	"	"										
92	Kidney iron ore, half a mile north of Berlin centre, Trumbull county,	"	"										
93	Limestone, from the falls of Meander Creek, Ellsworth, Trumbull county,	"	"										
94	Sulphate of barytes, with iron ore, from the falls of Meander Creek, Ellsworth, Trumbull county,	"	"										
95	Clay, one half mile north of Berlin Centre, Trumbull county,	2	"	"	"	"	"	"	1	1			
96	Clay, containing crystals of selenite, 1/2 of a mile south east of Ellsworth Centre, Trumbull county,	1	"	"	"	"	"	"	1	1			
97	Limestone, (ferruginous) one mile south of Ellsworth Centre, Trumbull county,	"	"	"	"	"	"	"	1	1			
98	Coal, (bituminous) Steven's mine, north east corner of Beaver, Columbiana county,	"	"	"	"	"	"	"					
99	Cannel coal, Steven's mine, north east corner of Beaver, Columbiana county,	"	"	"	"	"	"	"					
100	Blende ferruginous, lot 3, Division 4, Canfield, Trumbull county,	"	"	"	"	"	"	"					
101	Carbonate of iron, east part of tract 11, in run near the road, Jackson, Trumbull county,	"	"	"	"	"	"	"					
102	Coal, Ohl's mine, lot No. 22, Austintown, Trumbull county,	"	"	"	"	"	"	"					
103	Limestone, (blue and black) coal formation, lot nineteen, fourth division, Canfield, Trumbull county,	"	"	"	"	"	"	"					
104	do on north west part of lot No. 6, Division 4, Canfield, Trumbull county,	"	"	"	"	"	"	"					
105	Carbonate of iron, east part of tract 11, in run near the road, Jackson, Trumbull county,	"	"	"	"	"	"	"					
106	Clay, Big Meander, in the wood south of Weathersfield, Trumbull county,	"	"	"	"	"	"	"					
107	Carbonate of iron, lot No. 21, Hubbard, Trumbull county,	"	"	"	"	"	"	"					
108	Limonite, (iron ore,) lot No. 21, Hubbard, Trumbull county,	"	"	"	"	"	"	"					
109	Limestone, from a block in Squaw Run, near Youngstown, Trumbull county,	"	"	"	"	"	"	"					
110	Limestone, lot No. 56, Tyler's quarry, Hubbard, Trumbull county,	"	"	"	"	"	"	"					

CATALOGUE of Geological Specimens—Concluded.